

# Art of 3D Technology

Uncompromising and leading solutions



## aspire 2

World-Best Performance 3D Solder Paste Inspection

- ✔ The strongest printing process optimization tool
- ✔ The world's best measurement accuracy and reliability
- ✔ Advanced model for a wide production environment



User-friendly Software



3D Data based  
SMT Process Control  
System



Real Time Warp  
Compensation Solution



# ASPIRE 2

World-Best Performance 3D Solder Paste Inspection



FULL 3D



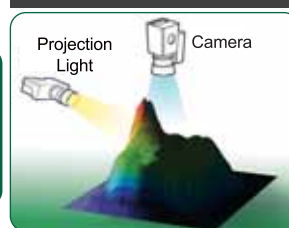
## Unique 3D SPI that provides Solutions for Conventional SPI Bottlenecks

### 4 Way Projection

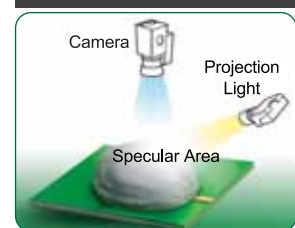


The best measurement accuracy by 4 Way Projection Technology

### Shadow Problem



### Specular Problem



The only solution provider



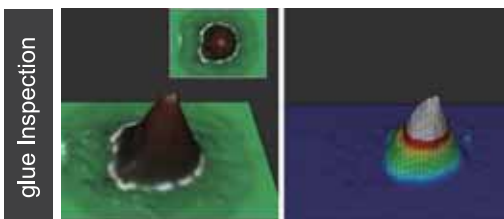
### Reference Plane Shadow Problem

The only solution provider



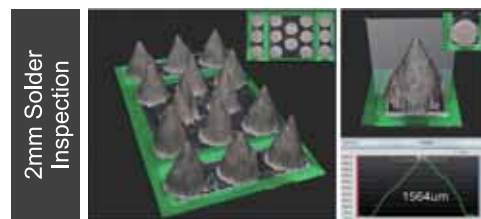
### Directional Problem

## Wide Inspection Objects Coverage



glue Inspection

3D measurement capability for glue, silver epoxy and more non-solder materials



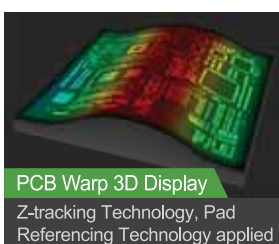
2mm Solder Inspection

Increased measurement range up to 2mm, \*Patented enabled by Multi-Frequency Moiré Technology

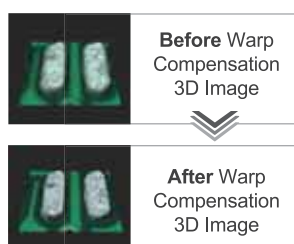


## Warp Compensation Solution

Optional



PCB Warp 3D Display  
Z-tracking Technology, Pad Referencing Technology applied



Before Warp Compensation 3D Image

After Warp Compensation 3D Image

### • Z-tracking 3D Compensation Solution

- Koh Young's Multi-Frequency Moiré Technology applied
- Real time measurement and compensation of board warp, with respect to the ideal plane
- Real time online provision of high quality PCB images with measurement data

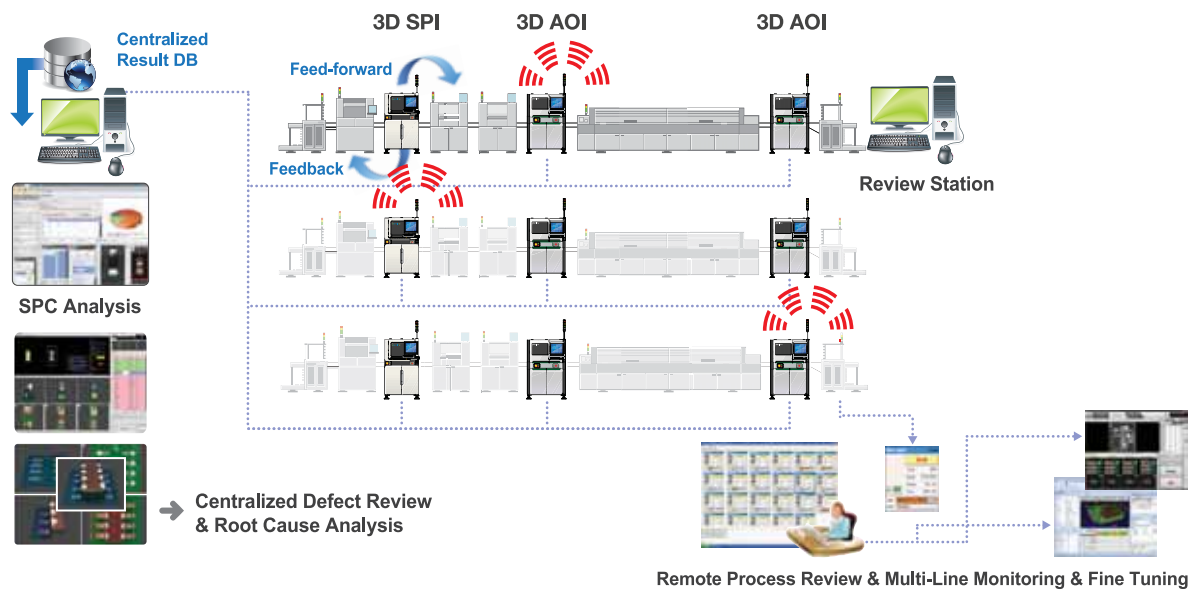
### • Pad Referencing 2D Compensation Solution

- Automatic reference teaching by using high quality IR light
- Real time matching of the PCB pad locations with the ideal PCB stencil design as defined by the CAD file



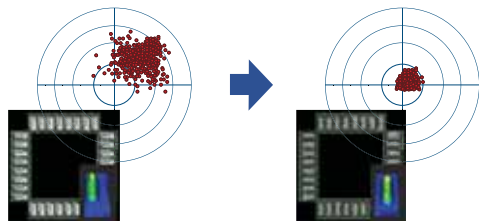
# 3D Data based SMT Process Control System

## o Koh Young's KSMART Solution



## Closed Loop Real Time Screen Printer Communication

Optional



Offset Histogram before and after using feedback



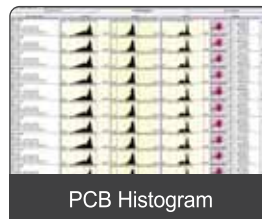
Defective Panel Marking

- Real time communication of printing process monitoring data with screen printers
- Result reporting after optimization by Koh Young's SPC software
- Real time communication of pick-and-place process monitoring data with mounters
- Supports process optimization by controlling panels containing defects



## SPC Plus Printing Process Optimization Tool

- Review, diagnosis and optimization of printing, pick-and-place and reflow process
- 3D data based SPI-AOI communication solution
- Traces root cause of defects by storing and communicating inspection results from Koh Young's 3D SPI and 3D AOI Systems



PCB Histogram



Defect Data Analysis



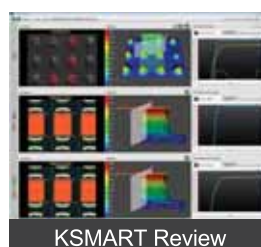
Process Capability Index Display



## KSMART Link Communication Solution



KSMART Link



KSMART Review

- Provides intuitive statistical process analysis data by using reliable 3D measurement data
- Communicates with a wide range of production management systems

# Must-check Requirements of 3D SPI System



Requirements	Solutions																																																																		
Shadow Problem Solution	<ul style="list-style-type: none"> <li>• 3D Shadow Free Moiré Technology &amp; 4 Way Projection</li> </ul>																																																																		
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※ Above specifications are subject to change without notice.

	L	DL	XL
Max. PCB Size	510X510mm (20X20 inch)	Dual: 510X430mm (20X16.9 inch) Single: 510X250mm (20X9.8 inch)	810X610mm (31.9X24 inch)
Min. PCB Size	50X50mm		
PCB Thickness	0.4~5mm (0.015~0.2 inch)		0.5~8mm (0.02~0.3 inch)
Max. PCB Weight	5kg (11lbs)		10kg (22lbs)
Machine Weight	600Kg (1322 lbs)		850Kg (1874 lbs)
Bottom Side Clearance	30mm (1.18 inch)		
Supplies	200~240VAC, 50/60Hz Single Phase, 5Kgf/cmm		
W	1000mm (39.3 inch)	1310mm (51.5 inch)	
D	1230mm (48.4 inch)	1475mm (57 inch)	
H	1602mm (63 inch)	1636mm (64.4 inch)	
F	898mm (35.3 inch)	1083mm (42.6 inch)	

